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## What is claimed is:

- 1. A multilayer ceramic capacitor comprising internal electrode layers and dielectric layers, wherein an average particle diameter (R), in a direction parallel with said internal electrode layers, in dielectric particles constituting said dielectric layers is larger than a thickness (d) of said dielectric layer.
- 2. The multilayer ceramic capacitor as set forth in claim 1, wherein a ratio (R/d) between said average particle diameter (R) and the thickness (d) of said dielectric layer satisfies 1<R/d<3.
- 3. The multilayer ceramic capacitor as set forth in claim 1, wherein a main component of said internal electrode layers is Ni or Cu.
- 4. The multilayer ceramic capacitor as set forth in claim 2 wherein a main component of said internal electrode layers is Ni or Cu.
- 5. The multilayer ceramic capacitor as set forth in claim 3, wherein Fe is segregated in said internal electrode layer.
- 6. The multilayer ceramic capacitor as set forth in claim 4, wherein Fe is segregated in said internal electrode layer.
- 7. The multilayer ceramic capacitor as set

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forth in claim 1, wherein a thickness of said dielectric layer is less than  $3\mu m$ .

- 8. The multilayer ceramic capacitor as set forth in claim 2, wherein a thickness of said dielectric layer is less than 3 \( \text{\mu} \)m.
- 9. The multilayer ceramic capacitor as set forth in claim 3, wherein a thickness of said dielectric layer is less than  $3\mu$ m.
- 10. The multilayer ceramic capacitor as set forth in claim 1, wherein said dielectric layer comprises at least said dielectric particles and a grain boundary phase, and an area ratio of said grain boundary phase in a section of said dielectric layer is 2% or less.
- 11. The multilayer ceramic capacitor as set forth in claim 2, wherein said dielectric layer comprises at least said dielectric particles and a grain boundary phase, and an area ratio of said grain boundary phase in a section of said dielectric layer is 2% or less.
  - 12. The multilayer ceramic capacitor as set forth in claim 1, wherein said dielectric particles have a core-shell structure.
- 13. The multilayer ceramic capacitor as set

  25 forth in claim 2, wherein said dielectric particles

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have a core-shell structure.

- 14. The multilayer ceramic capacitor as set forth in claim 1, wherein said dielectric layer is comprised of dielectric particles, a grain boundary and grain boundary phase, a segregation phase exists in said grain boundary phase, and said segregation phase contains at least two kinds of elements selected from Mn, Y, Si, Ca, V and W.
- 15. The multilayer ceramic capacitor as set forth in claim 2, wherein said dielectric layer is comprised of dielectric particles, a grain boundary and grain boundary phase, a segregation phase exists in said grain boundary phase, and said segregation phase contains at least two kinds of elements selected from Mn, Y, Si, Ca, V and W.
- 16. A production method of a multilayer ceramic capacitor, comprising the steps of:

firing a green chip to be a capacitor element body comprising dielectric layers and internal electrode layers in a reducing atmosphere; and

performing heat processing under an atmosphere of which oxygen partial pressure is higher than the reducing atmosphere;

wherein:

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an average particle diameter (R), in a direction parallel with the internal electrode layers, in dielectric particles constituting said dielectric layer is made to be larger than a thickness (d) of said dielectric layer.

- 17. The production method of a multilayer ceramic capacitor as set forth in claim 16, wherein a temperature of heat processing after firing under said reducing atmosphere is 1000°C or more.
- 18. The production method of a multilayer ceramic capacitor as set forth in claim 16, wherein an oxygen partial pressure at the time of heat processing after firing under said reducing atmosphere is  $10^{-3}$  Pa to 1 Pa.
- 19. The production method of a multilayer ceramic capacitor as set forth in claim 17, wherein an oxygen partial pressure at the time of heat processing after firing under said reducing atmosphere is  $10^{-3}$  Pa to 1 Pa.